

15757 U.S. PTO  
10/656526  
09/05/03

<b>FEE TRANSMITTAL</b> 17236 U.S. PTO 09/05/03		<i>Complete if Known</i>																																																																																																																																																					
		Application No.																																																																																																																																																					
		Filing Date	Herewith																																																																																																																																																				
		First Named Inventor	Kevin I. Bertness																																																																																																																																																				
		Title	METHOD AND APPARATUS FOR MEASURING A PARAMETER OF A VEHICLE ELECTRICAL SYSTEM																																																																																																																																																				
		Group Art Unit																																																																																																																																																					
Examiner Name																																																																																																																																																							
Total Amount of Payment \$ 510		Atty. Docket Number C382.12-0163																																																																																																																																																					
<b>METHOD OF PAYMENT (Check One)</b>		<b>FEE CALCULATION (Continued)</b>																																																																																																																																																					
1. <input checked="" type="checkbox"/> The Director is hereby authorized to charge any additional fee required under 37 C.F.R. § 1.16 and 1.17, including any petition fee, and credit any over payments to Deposit Account No. <u>23-1123</u> . Westman, Champlin & Kelly, P.A.  2. <input checked="" type="checkbox"/> Charge Authorization Form PTO 2038		<b>3. ADDITIONAL FEES</b>  <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee</th> <th>Fee</th> <th>Fee</th> <th>Fee</th> </tr> <tr> <th>Code</th> <th>(\$)</th> <th>Code</th> <th>(\$)</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>1051</td> <td>130</td> <td>2051</td> <td>65</td> <td>Surcharge - Late filing fee or oath</td> <td></td> </tr> <tr> <td>1052</td> <td>50</td> <td>2052</td> <td>25</td> <td>Surcharge - Late provisional Filing Fee or cover sheet</td> <td></td> </tr> <tr> <td>1053</td> <td>130</td> <td>1053</td> <td>130</td> <td>Non-English specification</td> <td></td> </tr> <tr> <td>1812</td> <td>2,520</td> <td>1812</td> <td>2,520</td> <td>For Filing a Request for Reexamination. (ex parte)</td> <td></td> </tr> <tr> <td>1251</td> <td>110</td> <td>2251</td> <td>55</td> <td>Extension for reply within first month</td> <td></td> </tr> <tr> <td>1252</td> <td>410</td> <td>2252</td> <td>205</td> <td>Extension for reply within second month</td> <td></td> </tr> <tr> <td>1253</td> <td>930</td> <td>2253</td> <td>465</td> <td>Extension for reply within third month</td> <td></td> </tr> <tr> <td>1254</td> <td>1,450</td> <td>2254</td> <td>725</td> <td>Extension for reply within fourth month</td> <td></td> </tr> <tr> <td>1255</td> <td>1,970</td> <td>2255</td> <td>985</td> <td>Extension for reply within fifth month</td> <td></td> </tr> <tr> <td>1402</td> <td>320</td> <td>2402</td> <td>160</td> <td>Filing a brief in support of an appeal</td> <td></td> </tr> <tr> <td>1403</td> <td>280</td> <td>2403</td> <td>140</td> <td>Request for oral hearing</td> <td></td> </tr> <tr> <td>1814</td> <td>110</td> <td>2814</td> <td>55</td> <td>Terminal Disclaimer Fee</td> <td></td> </tr> <tr> <td>1452</td> <td>110</td> <td>2452</td> <td>55</td> <td>Petition to Revive - unavoidable</td> <td></td> </tr> <tr> <td>1453</td> <td>1,300</td> <td>2453</td> <td>650</td> <td>Petition to Revive - unintentional</td> <td></td> </tr> <tr> <td>1501</td> <td>1,300</td> <td>2501</td> <td>650</td> <td>Utility/Reissue issue fee (inc. advance copies)</td> <td></td> </tr> <tr> <td>1502</td> <td>470</td> <td>2502</td> <td>235</td> <td>Design issue fee (inc. advance copies)</td> <td></td> </tr> <tr> <td>1460</td> <td>130</td> <td>1460</td> <td>130</td> <td>Petitions to the Commissioner</td> <td></td> </tr> <tr> <td>1807</td> <td>50</td> <td>1807</td> <td>50</td> <td>Petitions related to provisional applications</td> <td></td> </tr> <tr> <td>1806</td> <td>180</td> <td>1806</td> <td>180</td> <td>Submission of Information Disclosure Statement</td> <td></td> </tr> <tr> <td>8021</td> <td>40</td> <td>8021</td> <td>40</td> <td>Recording each patent assignment per property (times number of properties)</td> <td></td> </tr> <tr> <td colspan="4">Other Fee (specify) _____</td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align: right;"><b>Subtotal (1) \$ 375</b></td> <td colspan="2" style="text-align: right;"><b>Subtotal (3) \$</b></td> </tr> </tbody> </table>		Large Entity		Small Entity		Fee Description	Fee Paid	Fee	Fee	Fee	Fee	Code	(\$)	Code	(\$)			1051	130	2051	65	Surcharge - Late filing fee or oath		1052	50	2052	25	Surcharge - Late provisional Filing Fee or cover sheet		1053	130	1053	130	Non-English specification		1812	2,520	1812	2,520	For Filing a Request for Reexamination. (ex parte)		1251	110	2251	55	Extension for reply within first month		1252	410	2252	205	Extension for reply within second month		1253	930	2253	465	Extension for reply within third month		1254	1,450	2254	725	Extension for reply within fourth month		1255	1,970	2255	985	Extension for reply within fifth month		1402	320	2402	160	Filing a brief in support of an appeal		1403	280	2403	140	Request for oral hearing		1814	110	2814	55	Terminal Disclaimer Fee		1452	110	2452	55	Petition to Revive - unavoidable		1453	1,300	2453	650	Petition to Revive - unintentional		1501	1,300	2501	650	Utility/Reissue issue fee (inc. advance copies)		1502	470	2502	235	Design issue fee (inc. advance copies)		1460	130	1460	130	Petitions to the Commissioner		1807	50	1807	50	Petitions related to provisional applications		1806	180	1806	180	Submission of Information Disclosure Statement		8021	40	8021	40	Recording each patent assignment per property (times number of properties)		Other Fee (specify) _____						<b>Subtotal (1) \$ 375</b>				<b>Subtotal (3) \$</b>	
Large Entity		Small Entity		Fee Description	Fee Paid																																																																																																																																																		
Fee	Fee	Fee	Fee																																																																																																																																																				
Code	(\$)	Code	(\$)																																																																																																																																																				
1051	130	2051	65	Surcharge - Late filing fee or oath																																																																																																																																																			
1052	50	2052	25	Surcharge - Late provisional Filing Fee or cover sheet																																																																																																																																																			
1053	130	1053	130	Non-English specification																																																																																																																																																			
1812	2,520	1812	2,520	For Filing a Request for Reexamination. (ex parte)																																																																																																																																																			
1251	110	2251	55	Extension for reply within first month																																																																																																																																																			
1252	410	2252	205	Extension for reply within second month																																																																																																																																																			
1253	930	2253	465	Extension for reply within third month																																																																																																																																																			
1254	1,450	2254	725	Extension for reply within fourth month																																																																																																																																																			
1255	1,970	2255	985	Extension for reply within fifth month																																																																																																																																																			
1402	320	2402	160	Filing a brief in support of an appeal																																																																																																																																																			
1403	280	2403	140	Request for oral hearing																																																																																																																																																			
1814	110	2814	55	Terminal Disclaimer Fee																																																																																																																																																			
1452	110	2452	55	Petition to Revive - unavoidable																																																																																																																																																			
1453	1,300	2453	650	Petition to Revive - unintentional																																																																																																																																																			
1501	1,300	2501	650	Utility/Reissue issue fee (inc. advance copies)																																																																																																																																																			
1502	470	2502	235	Design issue fee (inc. advance copies)																																																																																																																																																			
1460	130	1460	130	Petitions to the Commissioner																																																																																																																																																			
1807	50	1807	50	Petitions related to provisional applications																																																																																																																																																			
1806	180	1806	180	Submission of Information Disclosure Statement																																																																																																																																																			
8021	40	8021	40	Recording each patent assignment per property (times number of properties)																																																																																																																																																			
Other Fee (specify) _____																																																																																																																																																							
<b>Subtotal (1) \$ 375</b>				<b>Subtotal (3) \$</b>																																																																																																																																																			
<b>FEE CALCULATION</b>																																																																																																																																																							
<b>1. BASIC FILING FEE</b>																																																																																																																																																							
<table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> </tr> <tr> <th>Fee</th> <th>Fee</th> <th>Fee</th> <th>Fee</th> </tr> <tr> <th>Code</th> <th>(\$)</th> <th>Code</th> <th>(\$)</th> <th></th> </tr> </thead> <tbody> <tr> <td>1001</td> <td>750</td> <td>2001</td> <td>375</td> <td><input checked="" type="checkbox"/> Utility Filing Fee</td> </tr> <tr> <td>1002</td> <td>330</td> <td>2002</td> <td>165</td> <td><input type="checkbox"/> Design Filing Fee</td> </tr> <tr> <td>1004</td> <td>750</td> <td>2004</td> <td>375</td> <td><input type="checkbox"/> Reissue Filing Fee</td> </tr> <tr> <td>1005</td> <td>160</td> <td>2005</td> <td>80</td> <td><input type="checkbox"/> Prov. Filing Fee</td> </tr> <tr> <td colspan="5" style="text-align: right;"><b>Subtotal (1) \$ 375</b></td> </tr> </tbody> </table>		Large Entity		Small Entity		Fee Description	Fee	Fee	Fee	Fee	Code	(\$)	Code	(\$)		1001	750	2001	375	<input checked="" type="checkbox"/> Utility Filing Fee	1002	330	2002	165	<input type="checkbox"/> Design Filing Fee	1004	750	2004	375	<input type="checkbox"/> Reissue Filing Fee	1005	160	2005	80	<input type="checkbox"/> Prov. Filing Fee	<b>Subtotal (1) \$ 375</b>																																																																																																																			
Large Entity		Small Entity		Fee Description																																																																																																																																																			
Fee	Fee	Fee	Fee																																																																																																																																																				
Code	(\$)	Code	(\$)																																																																																																																																																				
1001	750	2001	375	<input checked="" type="checkbox"/> Utility Filing Fee																																																																																																																																																			
1002	330	2002	165	<input type="checkbox"/> Design Filing Fee																																																																																																																																																			
1004	750	2004	375	<input type="checkbox"/> Reissue Filing Fee																																																																																																																																																			
1005	160	2005	80	<input type="checkbox"/> Prov. Filing Fee																																																																																																																																																			
<b>Subtotal (1) \$ 375</b>																																																																																																																																																							
<b>2. EXTRA CLAIM FEES</b>																																																																																																																																																							
<table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Number Claims</th> <th>Prior**</th> <th>Extra</th> <th>Fee from Below</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td><b>Total</b></td> <td><b>35</b></td> <td><b>20</b></td> <td><b>15</b></td> <td><b>9</b></td> <td><b>135</b></td> </tr> <tr> <td><b>Indep.</b></td> <td><b>3</b></td> <td><b>3</b></td> <td><b>0</b></td> <td><b>42</b></td> <td><b>0</b></td> </tr> </tbody> </table>			Number Claims	Prior**	Extra	Fee from Below	Fee Paid	<b>Total</b>	<b>35</b>	<b>20</b>	<b>15</b>	<b>9</b>	<b>135</b>	<b>Indep.</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>42</b>	<b>0</b>																																																																																																																																				
	Number Claims	Prior**	Extra	Fee from Below	Fee Paid																																																																																																																																																		
<b>Total</b>	<b>35</b>	<b>20</b>	<b>15</b>	<b>9</b>	<b>135</b>																																																																																																																																																		
<b>Indep.</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>42</b>	<b>0</b>																																																																																																																																																		
Multiple Dependent Claims ** Insert 3 and 20, or number previously paid if greater; Reissue see below <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Description</th> </tr> <tr> <th>Fee</th> <th>Fee</th> <th>Fee</th> <th>Fee</th> </tr> <tr> <th>Code</th> <th>(\$)</th> <th>Code</th> <th>(\$)</th> <th></th> </tr> </thead> <tbody> <tr> <td>1202</td> <td>18</td> <td>2202</td> <td>9</td> <td>Claims in excess of 20</td> </tr> <tr> <td>1201</td> <td>84</td> <td>2201</td> <td>42</td> <td>Independent claims in excess of 3</td> </tr> <tr> <td>1203</td> <td>280</td> <td>2203</td> <td>140</td> <td>Multiple Dependent Claims</td> </tr> <tr> <td>1204</td> <td>84</td> <td>2204</td> <td>42</td> <td>Reissue Independent Claims over Original Patent</td> </tr> <tr> <td>1205</td> <td>18</td> <td>2205</td> <td>9</td> <td>Reissue claims in excess of 20 and over original patent</td> </tr> <tr> <td colspan="5" style="text-align: right;"><b>Subtotal (2) \$ 135</b></td> </tr> </tbody> </table>		Large Entity		Small Entity		Description	Fee	Fee	Fee	Fee	Code	(\$)	Code	(\$)		1202	18	2202	9	Claims in excess of 20	1201	84	2201	42	Independent claims in excess of 3	1203	280	2203	140	Multiple Dependent Claims	1204	84	2204	42	Reissue Independent Claims over Original Patent	1205	18	2205	9	Reissue claims in excess of 20 and over original patent	<b>Subtotal (2) \$ 135</b>																																																																																																														
Large Entity		Small Entity		Description																																																																																																																																																			
Fee	Fee	Fee	Fee																																																																																																																																																				
Code	(\$)	Code	(\$)																																																																																																																																																				
1202	18	2202	9	Claims in excess of 20																																																																																																																																																			
1201	84	2201	42	Independent claims in excess of 3																																																																																																																																																			
1203	280	2203	140	Multiple Dependent Claims																																																																																																																																																			
1204	84	2204	42	Reissue Independent Claims over Original Patent																																																																																																																																																			
1205	18	2205	9	Reissue claims in excess of 20 and over original patent																																																																																																																																																			
<b>Subtotal (2) \$ 135</b>																																																																																																																																																							

Signature Judson K Champlin  
Date Sept 5, 2003

Reg. No. 34,797

Deposit Account No. 23-1123

Please type a plus (+) sign in this box →



PTO/SB/05 (4/98)  
Approved for use through 09/30/2000. OMB 0651-0032  
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new non-provisional applications under 37 C.F.R. § 1.53(B))

Attorney Docket No. C382.12-0163  
First Inventor or Application Identifier Kevin I. Bertness  
Title METHOD AND APPARATUS FOR MEASURING A  
PARAMETER OF A VEHICLE ELECTRICAL SYSTEM  
Express Mail Label No. EV194226286US

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

Address To: Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

1. ☒ \*Fee Transmittal Form e.g., PTO/SB17)  
(Submit an original and a duplicate for fee processing)
2. ☒ Applicant Claims small entity status
3. ☒ Specification [Total Sheets **27**]  
(preferred arrangement set forth below)  
- Descriptive title of the Invention)  
- Cross References to Related Applications  
- Statement Regarding Fed sponsored R & D  
- Reference to Microfiche Appendix  
- Background of the Invention  
- Brief Summary of the Invention  
- Brief Description of the Drawings (if filed)  
- Detailed Description  
- Claim(s)  
- Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. § 113) [Total Sheets **3**]
5. Oath or Declaration [Total Sheets **2**]  
a. ☒ Newly executed (original or copy)  
b. ☐ Copy from a prior application (37 C.F.R. § 1.63(d))  
(for continuation/divisional with Box 18 completed)  
i. ☐ DELETION OF INVENTOR(S)  
Signed statement attached deleting  
inventor(s) named in the prior application,  
see 37 C.F.R. §§1.63(d)(2) and 1.33(b).
6. ☒ Application Data Sheet. See 37 CFR 1.76

7. ☐ CD-ROM or CD-R in duplicate, large table or  
Computer program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission  
(If applicable, all necessary)
- a. ☐ Computer Readable Copy  
b. Specification Sequence Listing on:  
i. ☐ CD-ROM or CD-R (2 Copies); or  
ii. ☐ Paper  
c. ☐ Statement verifying identity of above copies

## ACCOMPANYING APPLICATION PARTS

9. ☒ Assignment Papers (cover sheet & document(s))
10. ☐ 37 C.F.R. § 3.73(b) Statement ☒ Power of  
(when there is an assignee) Attorney
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure ☐ Copies of IDS  
Statement (IDS)/PTO – 1449 Citations
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)
16. ☐ Nonpublication Request Under 35 USC 122  
(b)(2)(B)(i). Applicant must attach form PTO/SB/35  
or its equivalent
17. ☐ Other:

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an  
Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation –in part (CIP)

of prior application No: \_\_\_\_\_ / \_\_\_\_\_

Prior application information:

Examiner \_\_\_\_\_

Group/Art Unit: \_\_\_\_\_

**FOR CONTINUATION or DIVISIONAL APPS only:** The entire disclosure of the prior application, from which an oath or declaration is supplied  
under Box 4b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by  
reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

## 17. CORRESPONDENCE

☐ Customer Number or Bar Code Label

(Insert Customer No. or Attach bar code label here)

or ☒ Correspondence address below

Name Judson K. Champlin  
WESTMAN CHAMPLIN & KELLY  
Address Suite 1600 – International Centre  
900 South Second Avenue  
City Minneapolis State MN Zip Code 55402-3319  
Country USA Telephone (612) 334-3222 Fax (612) 334-3312

Name (Print/type) Judson K. Champlin Registration No. (Attorney/Agent) 34,797  
Signature Date 9/5/03

<b>FEE TRANSMITTAL</b>	<i>Complete if Known</i>																																																																																																																																																					
	Application No.																																																																																																																																																					
	Filing Date	Herewith																																																																																																																																																				
	First Named Inventor	Kevin I. Bertness																																																																																																																																																				
	Title	METHOD AND APPARATUS FOR MEASURING A PARAMETER OF A VEHICLE ELECTRICAL SYSTEM																																																																																																																																																				
	Group Art Unit																																																																																																																																																					
	Examiner Name																																																																																																																																																					
Total Amount of Payment    \$ 510	Atty. Docket Number	C382.12-0163																																																																																																																																																				
<b>METHOD OF PAYMENT (Check One)</b>	<b>FEE CALCULATION (Continued)</b>																																																																																																																																																					
1. <input checked="" type="checkbox"/> The Director is hereby authorized to charge any additional fee required under 37 C.F.R. § 1.16 and 1.17, including any petition fee, and credit any over payments to Deposit Account No. <u>23-1123</u> . Westman, Champlin & Kelly, P.A.  2. <input checked="" type="checkbox"/> Charge Authorization Form PTO 2038	<b>3. ADDITIONAL FEES</b>  <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee</th> <th>Fee</th> <th>Fee</th> <th>Fee</th> </tr> <tr> <th>Code</th> <th>(\$)</th> <th>Code</th> <th>(\$)</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>1051</td> <td>130</td> <td>2051</td> <td>65</td> <td>Surcharge - Late filing fee or oath</td> <td></td> </tr> <tr> <td>1052</td> <td>50</td> <td>2052</td> <td>25</td> <td>Surcharge - Late provisional Filing Fee or cover sheet</td> <td></td> </tr> <tr> <td>1053</td> <td>130</td> <td>1053</td> <td>130</td> <td>Non-English specification</td> <td></td> </tr> <tr> <td>1812</td> <td>2,520</td> <td>1812</td> <td>2,520</td> <td>For Filing a Request for Reexamination. (ex parte)</td> <td></td> </tr> <tr> <td>1251</td> <td>110</td> <td>2251</td> <td>55</td> <td>Extension for reply within first month</td> <td></td> </tr> <tr> <td>1252</td> <td>410</td> <td>2252</td> <td>205</td> <td>Extension for reply within second month</td> <td></td> </tr> <tr> <td>1253</td> <td>930</td> <td>2253</td> <td>465</td> <td>Extension for reply within third month</td> <td></td> </tr> <tr> <td>1254</td> <td>1,450</td> <td>2254</td> <td>725</td> <td>Extension for reply within fourth month</td> <td></td> </tr> <tr> <td>1255</td> <td>1,970</td> <td>2255</td> <td>985</td> <td>Extension for reply within fifth month</td> <td></td> </tr> <tr> <td>1402</td> <td>320</td> <td>2402</td> <td>160</td> <td>Filing a brief in support of an appeal</td> <td></td> </tr> <tr> <td>1403</td> <td>280</td> <td>2403</td> <td>140</td> <td>Request for oral hearing</td> <td></td> </tr> <tr> <td>1814</td> <td>110</td> <td>2814</td> <td>55</td> <td>Terminal Disclaimer Fee</td> <td></td> </tr> <tr> <td>1452</td> <td>110</td> <td>2452</td> <td>55</td> <td>Petition to Revive - unavoidable</td> <td></td> </tr> <tr> <td>1453</td> <td>1,300</td> <td>2453</td> <td>650</td> <td>Petition to Revive - unintentional</td> <td></td> </tr> <tr> <td>1501</td> <td>1,300</td> <td>2501</td> <td>650</td> <td>Utility/Reissue issue fee (inc. advance copies)</td> <td></td> </tr> <tr> <td>1502</td> <td>470</td> <td>2502</td> <td>235</td> <td>Design issue fee (inc. advance copies)</td> <td></td> </tr> <tr> <td>1460</td> <td>130</td> <td>1460</td> <td>130</td> <td>Petitions to the Commissioner</td> <td></td> </tr> <tr> <td>1807</td> <td>50</td> <td>1807</td> <td>50</td> <td>Petitions related to provisional applications</td> <td></td> </tr> <tr> <td>1806</td> <td>180</td> <td>1806</td> <td>180</td> <td>Submission of Information Disclosure Statement</td> <td></td> </tr> <tr> <td>8021</td> <td>40</td> <td>8021</td> <td>40</td> <td>Recording each patent assignment per property (times number of properties)</td> <td></td> </tr> <tr> <td colspan="6">Other Fee (specify) _____</td> </tr> <tr> <td colspan="6" style="text-align: right;"><b>Subtotal (3) \$</b></td> </tr> </tbody> </table>		Large Entity		Small Entity		Fee Description	Fee Paid	Fee	Fee	Fee	Fee	Code	(\$)	Code	(\$)			1051	130	2051	65	Surcharge - Late filing fee or oath		1052	50	2052	25	Surcharge - Late provisional Filing Fee or cover sheet		1053	130	1053	130	Non-English specification		1812	2,520	1812	2,520	For Filing a Request for Reexamination. (ex parte)		1251	110	2251	55	Extension for reply within first month		1252	410	2252	205	Extension for reply within second month		1253	930	2253	465	Extension for reply within third month		1254	1,450	2254	725	Extension for reply within fourth month		1255	1,970	2255	985	Extension for reply within fifth month		1402	320	2402	160	Filing a brief in support of an appeal		1403	280	2403	140	Request for oral hearing		1814	110	2814	55	Terminal Disclaimer Fee		1452	110	2452	55	Petition to Revive - unavoidable		1453	1,300	2453	650	Petition to Revive - unintentional		1501	1,300	2501	650	Utility/Reissue issue fee (inc. advance copies)		1502	470	2502	235	Design issue fee (inc. advance copies)		1460	130	1460	130	Petitions to the Commissioner		1807	50	1807	50	Petitions related to provisional applications		1806	180	1806	180	Submission of Information Disclosure Statement		8021	40	8021	40	Recording each patent assignment per property (times number of properties)		Other Fee (specify) _____						<b>Subtotal (3) \$</b>					
Large Entity		Small Entity		Fee Description	Fee Paid																																																																																																																																																	
Fee	Fee	Fee	Fee																																																																																																																																																			
Code	(\$)	Code	(\$)																																																																																																																																																			
1051	130	2051	65	Surcharge - Late filing fee or oath																																																																																																																																																		
1052	50	2052	25	Surcharge - Late provisional Filing Fee or cover sheet																																																																																																																																																		
1053	130	1053	130	Non-English specification																																																																																																																																																		
1812	2,520	1812	2,520	For Filing a Request for Reexamination. (ex parte)																																																																																																																																																		
1251	110	2251	55	Extension for reply within first month																																																																																																																																																		
1252	410	2252	205	Extension for reply within second month																																																																																																																																																		
1253	930	2253	465	Extension for reply within third month																																																																																																																																																		
1254	1,450	2254	725	Extension for reply within fourth month																																																																																																																																																		
1255	1,970	2255	985	Extension for reply within fifth month																																																																																																																																																		
1402	320	2402	160	Filing a brief in support of an appeal																																																																																																																																																		
1403	280	2403	140	Request for oral hearing																																																																																																																																																		
1814	110	2814	55	Terminal Disclaimer Fee																																																																																																																																																		
1452	110	2452	55	Petition to Revive - unavoidable																																																																																																																																																		
1453	1,300	2453	650	Petition to Revive - unintentional																																																																																																																																																		
1501	1,300	2501	650	Utility/Reissue issue fee (inc. advance copies)																																																																																																																																																		
1502	470	2502	235	Design issue fee (inc. advance copies)																																																																																																																																																		
1460	130	1460	130	Petitions to the Commissioner																																																																																																																																																		
1807	50	1807	50	Petitions related to provisional applications																																																																																																																																																		
1806	180	1806	180	Submission of Information Disclosure Statement																																																																																																																																																		
8021	40	8021	40	Recording each patent assignment per property (times number of properties)																																																																																																																																																		
Other Fee (specify) _____																																																																																																																																																						
<b>Subtotal (3) \$</b>																																																																																																																																																						
<b>FEE CALCULATION</b>																																																																																																																																																						
<b>1. BASIC FILING FEE</b>  <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> </tr> <tr> <th>Fee</th> <th>Fee</th> <th>Fee</th> <th>Fee</th> </tr> <tr> <th>Code</th> <th>(\$)</th> <th>Code</th> <th>(\$)</th> <th></th> </tr> </thead> <tbody> <tr> <td>1001</td> <td>750</td> <td>2001</td> <td>375</td> <td><input checked="" type="checkbox"/> Utility Filing Fee</td> </tr> <tr> <td>1002</td> <td>330</td> <td>2002</td> <td>165</td> <td><input type="checkbox"/> Design Filing Fee</td> </tr> <tr> <td>1004</td> <td>750</td> <td>2004</td> <td>375</td> <td><input type="checkbox"/> Reissue Filing Fee</td> </tr> <tr> <td>1005</td> <td>160</td> <td>2005</td> <td>80</td> <td><input type="checkbox"/> Prov. Filing Fee</td> </tr> <tr> <td colspan="5" style="text-align: right;"><b>Subtotal (1) \$ 375</b></td> </tr> </tbody> </table> <b>2. EXTRA CLAIM FEES</b>  <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Number Claims</th> <th>Prior**</th> <th>Extra</th> <th>Fee from Below</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td><b>Total</b></td> <td><b>35</b></td> <td><b>20</b></td> <td><b>15</b></td> <td><b>9</b></td> <td><b>135</b></td> </tr> <tr> <td><b>Indep.</b></td> <td><b>3</b></td> <td><b>3</b></td> <td><b>0</b></td> <td><b>42</b></td> <td><b>0</b></td> </tr> </tbody> </table> Multiple Dependent Claims  ** Insert 3 and 20, or number previously paid if greater; Reissue see below <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Description</th> </tr> <tr> <th>Fee</th> <th>Fee</th> <th>Fee</th> <th>Fee</th> </tr> <tr> <th>Code</th> <th>(\$)</th> <th>Code</th> <th>(\$)</th> <th></th> </tr> </thead> <tbody> <tr> <td>1202</td> <td>18</td> <td>2202</td> <td>9</td> <td>Claims in excess of 20</td> </tr> <tr> <td>1201</td> <td>84</td> <td>2201</td> <td>42</td> <td>Independent claims in excess of 3</td> </tr> <tr> <td>1203</td> <td>280</td> <td>2203</td> <td>140</td> <td>Multiple Dependent Claims</td> </tr> <tr> <td>1204</td> <td>84</td> <td>2204</td> <td>42</td> <td>Reissue Independent Claims over Original Patent</td> </tr> <tr> <td>1205</td> <td>18</td> <td>2205</td> <td>9</td> <td>Reissue claims in excess of 20 and over original patent</td> </tr> <tr> <td colspan="5" style="text-align: right;"><b>Subtotal (2) \$ 135</b></td> </tr> </tbody> </table>	Large Entity		Small Entity		Fee Description	Fee	Fee	Fee	Fee	Code	(\$)	Code	(\$)		1001	750	2001	375	<input checked="" type="checkbox"/> Utility Filing Fee	1002	330	2002	165	<input type="checkbox"/> Design Filing Fee	1004	750	2004	375	<input type="checkbox"/> Reissue Filing Fee	1005	160	2005	80	<input type="checkbox"/> Prov. Filing Fee	<b>Subtotal (1) \$ 375</b>						Number Claims	Prior**	Extra	Fee from Below	Fee Paid	<b>Total</b>	<b>35</b>	<b>20</b>	<b>15</b>	<b>9</b>	<b>135</b>	<b>Indep.</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>42</b>	<b>0</b>	Large Entity		Small Entity		Description	Fee	Fee	Fee	Fee	Code	(\$)	Code	(\$)		1202	18	2202	9	Claims in excess of 20	1201	84	2201	42	Independent claims in excess of 3	1203	280	2203	140	Multiple Dependent Claims	1204	84	2204	42	Reissue Independent Claims over Original Patent	1205	18	2205	9	Reissue claims in excess of 20 and over original patent	<b>Subtotal (2) \$ 135</b>																																																					
Large Entity		Small Entity		Fee Description																																																																																																																																																		
Fee	Fee	Fee	Fee																																																																																																																																																			
Code	(\$)	Code	(\$)																																																																																																																																																			
1001	750	2001	375	<input checked="" type="checkbox"/> Utility Filing Fee																																																																																																																																																		
1002	330	2002	165	<input type="checkbox"/> Design Filing Fee																																																																																																																																																		
1004	750	2004	375	<input type="checkbox"/> Reissue Filing Fee																																																																																																																																																		
1005	160	2005	80	<input type="checkbox"/> Prov. Filing Fee																																																																																																																																																		
<b>Subtotal (1) \$ 375</b>																																																																																																																																																						
	Number Claims	Prior**	Extra	Fee from Below	Fee Paid																																																																																																																																																	
<b>Total</b>	<b>35</b>	<b>20</b>	<b>15</b>	<b>9</b>	<b>135</b>																																																																																																																																																	
<b>Indep.</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>42</b>	<b>0</b>																																																																																																																																																	
Large Entity		Small Entity		Description																																																																																																																																																		
Fee	Fee	Fee	Fee																																																																																																																																																			
Code	(\$)	Code	(\$)																																																																																																																																																			
1202	18	2202	9	Claims in excess of 20																																																																																																																																																		
1201	84	2201	42	Independent claims in excess of 3																																																																																																																																																		
1203	280	2203	140	Multiple Dependent Claims																																																																																																																																																		
1204	84	2204	42	Reissue Independent Claims over Original Patent																																																																																																																																																		
1205	18	2205	9	Reissue claims in excess of 20 and over original patent																																																																																																																																																		
<b>Subtotal (2) \$ 135</b>																																																																																																																																																						

Signature \_\_\_\_\_

(Judson K Champlin)

 Date 5/15/2003

 Reg. No. 34,797

 Deposit Account No. 23-1123